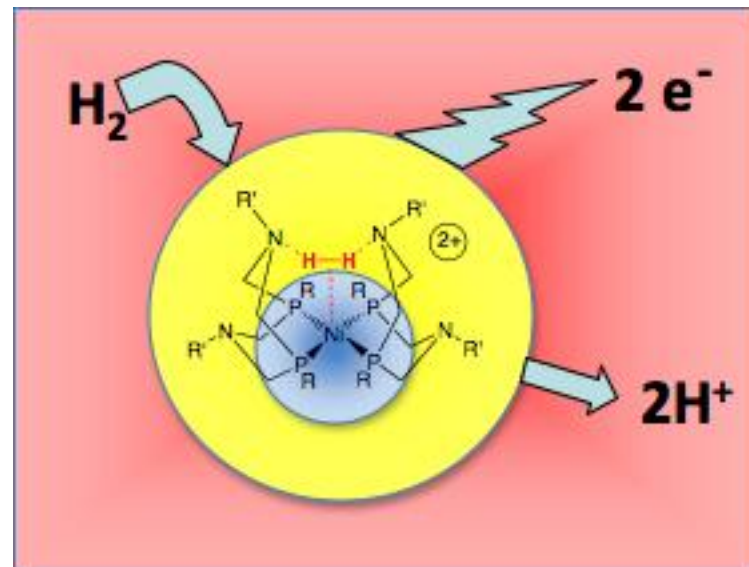




U.S. DEPARTMENT OF
ENERGY

Center for Molecular Electrocatalysis
R. Morris Bullock, Director
(Pacific Northwest National Laboratory)

Our goal is to achieve transformational changes in our ability to design molecular electrocatalysts that efficiently convert electrical energy into chemical bonds in fuels, or the reverse, converting chemical energy to electrical energy.



RESEARCH PLAN AND DIRECTIONS

A secure energy future will require catalysts for the oxidation of hydrogen, reduction of oxygen, and reduction of nitrogen. These reactions involve movement of multiple protons and electrons. Our research will address how proton relays can regulate the movement of protons and electrons to enhance the rates of electrocatalysts.